Hyungyil Lee

List of Publications by Year
in descending order

102	1,695	304368 22	329751 37
papers	citations	h-index	g-index

102	102	102	977
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of modulation ratio on the mechanical behavior of multilayer-thin-film metallic glasses. Journal of Materials Research and Technology, 2022, 16, 216-228.	2.6	5
2	Influence of substrate type and film thickness on the failures of Zr-based thin-film metallic glass under nanoscratch. Wear, 2022, 494-495, 204241.	1.5	2
3	Determination of material properties of bulk metallic glass using nanoindentation and artificial neural network. Intermetallics, 2022, 144, 107492.	1.8	7
4	Determination of plastic properties of weld metals using an optimal regression of tensile and hardness test data. International Journal of Mechanical Sciences, 2021, 194, 106196.	3.6	6
5	Estimation of shear fracture load in resistance projection welded sheets with dissimilar strength and thickness. Engineering Failure Analysis, 2021, 120, 105042.	1.8	4
6	Structural and Mechanical Characterization of Platinum Thin Films Prepared Electrochemically on ITO/Glass Substrate. Metals and Materials International, 2021, 27, 1554-1564.	1.8	7
7	Enhancement of Drucker-Prager yield model by adding corner points for pressure-dependent materials. Journal of Mechanical Science and Technology, 2021, 35, 1017-1027.	0.7	2
8	Shape optimization of square weld nut in projection welding. International Journal of Advanced Manufacturing Technology, 2021, 113, 1915-1928.	1.5	1
9	Determination of parameters of free volume model for Zr-based BMG via nanoindentation. Intermetallics, 2021, 131, 107121.	1.8	13
10	Extracting plastic properties from in-plane displacement data of spherical indentation imprint. International Journal of Mechanical Sciences, 2021, 197, 106291.	3.6	22
11	Evaluation of mechanical properties of Zrâ€“Cuâ€“Alâ€“Ni TFMG using nanoindentation. Journal of Materials Research and Technology, 2021, 12, 2368-2382.	2.6	10
12	Evaluation of residual stress from ultrasonic cavitation peening using cavitation pit analysis and FEA. International Journal of Mechanical Sciences, 2021, 198, 106352.	3.6	12
13	Influences of stress triaxiality and local fiber orientation on the failure strain for injection-molded carbon fiber reinforced polyamide-6. Engineering Fracture Mechanics, 2021, 250, 107784.	2.0	12
14	Preliminary design of an injection-molded recycled-carbon fiberâ€reinforced plastic/metal hybrid automotive structure via combined optimization techniques. Structural and Multidisciplinary Optimization, 2021, 64, 2773-2788.	1.7	15
15	Dual flat-spherical indentation for extracting elasticâ€plastic properties from rough metallic surfaces. Materials and Design, 2021, 208, 109909.	3.3	12
16	Evaluation of ductile fracture in welded tubes with tensile, hardness, flaring tests. International Journal of Mechanical Sciences, 2021, 210, 106745.	3.6	7
17	Compressive residual stress generation at crack tip in bulk metal using acoustic cavitation. International Journal of Fatigue, 2021, 153, 106477.	2.8	5
18	Evaluation of equi-biaxial residual stress from spherical indentation imprint. International Journal of Mechanical Sciences, 2021, 211, 106773.	3.6	9

#	Article	IF	Citations
19	Study on tribological characteristics of Zr-based BMG via nanoscratch techniques. Wear, 2021, 486-487, 204067.	1.5	5
20	Nanoindentation of zirconium based bulk metallic glass and its nanomechanical properties. Journal of Materials Research and Technology, 2020, 9, 104-114.	2.6	36
21	Combined transition flaw size and competition model based on size effect of spherical tip. Computational Materials Science, 2020, 172, 109321.	1.4	2
22	Determination of crack-free mechanical properties of brittle materials via single nanoindentation. International Journal of Solids and Structures, 2020, 191-192, 8-25.	1.3	5
23	The influence of fiber orientation and geometry-induced strain concentration on the fatigue life of short carbon fibers reinforced polyamide-6. Materials and Design, 2020, 190, 108569.	3.3	24
24	Numerical implementation of modified Chaboche kinematic hardening model for multiaxial ratcheting. Computers and Structures, 2020, 231, 106222.	2.4	9
25	Estimation of lobe curve with material strength in resistance projection welding. Journal of Materials Processing Technology, 2019, 263, 101-111.	3.1	10
26	Design and numerical evaluation of recycled-carbon-fiber-reinforced polymer/metal hybrid engine cradle concepts. International Journal of Mechanical Sciences, 2019, 163, 105115.	3.6	20
27	Determination of Chaboche combined hardening parameters with dual backstress for ratcheting evaluation of AISI 52100 bearing steel. International Journal of Fatigue, 2019, 122, 152-163.	2.8	35
28	Enhancement of the analytical solution for double torsion test using extended finite element techniques. Ceramics International, 2019, 45, 9548-9559.	2.3	1
29	Indentation cracking of monocrystalline silicon considering fracture anisotropy. Theoretical and Applied Fracture Mechanics, 2019, 100, 128-138.	2.1	10
30	Optimal Design of Square Weld Nut by Taguchi Method and FE Analyses in Nut Projection Welding. Transactions of the Korean Society of Mechanical Engineers, A, 2019, 43, 409-418.	0.1	1
31	Prediction of Shear Fracture Load in Resistance Projection Welding with Dissimilar Materials and Thickness of High Strength Steel. Transactions of the Korean Society of Mechanical Engineers, A, 2019, 43, 775-785.	0.1	1
32	Scratch-tip-size effect and change of friction coefficient in nano / micro scratch tests using XFEM. Tribology International, 2018, 120, 398-410.	3.0	54
33	Numerical investigations on the effect of pit on two-step dimple forming of atomic fuel spacer grid. International Journal of Advanced Manufacturing Technology, 2018, 94, 293-299.	1.5	1
34	Peening the tip of a notch using ultrasonic cavitation. Ultrasonics, 2018, 82, 322-326.	2.1	11
35	Numerical Simulation of Crack Propagation in Double Torsion Test. Lecture Notes on Multidisciplinary Industrial Engineering, 2018, , 359-367.	0.4	0
36	Obtaining Acceptable Welding Domain with Material Strength by Using FE Analyses of Resistance Projection Welding. Transactions of the Korean Society of Mechanical Engineers, A, 2018, 42, 123-131.	0.1	0

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37	Spherical indentation for brittle fracture toughness evaluation by considering kinked-cone-crack. Journal of the European Ceramic Society, 2017, 37, 381-391.	2.8	23
38	Peening narrow nozzles of reactor pressure vessels using ultrasonic cavitation. Journal of Mechanical Science and Technology, 2017, 31, 5279-5283.	0.7	7
39	Investigation on Indentation Cracking-Based Approaches for Residual Stress Evaluation. Materials, 2017, 10, 404.	1.3	11
40	Analytical determination of forming limit curve for zirlo and its experimental validation. Journal of Manufacturing Processes, 2016, 23, 122-129.	2.8	11
41	Spherical indentation cracking in brittle materials: An XFEM study. , 2016, , .		2
42	XFEM investigation on Knoop indentation cracking: Fracture toughness and aspect-ratio of radial-median cracks. Materials and Design, 2016, 107, 393-405.	3.3	10
43	Spherical indentation method to evaluate material properties of high-strength materials. International Journal of Mechanical Sciences, 2016, 106, 117-127.	3.6	33
44	Contact size-independent method for estimation of creep properties with spherical indentation. Computational Materials Science, 2016, 113, 211-220.	1.4	9
45	Numerical approach to the evaluation of forming limit curves for zircaloy-4 sheet. Journal of Materials Research, 2015, 30, 3277-3287.	1.2	3
46	An efficient way of extracting creep properties from short-time spherical indentation tests. Journal of Materials Research, 2015, 30, 3542-3552.	1.2	15
47	A contact size-independent approach to the estimation of biaxial residual stresses by Knoop indentation. Materials and Design, 2015, 84, 300-312.	3.3	34
48	A dual triangular pyramidal indentation technique for material property evaluation. Journal of Materials Research, 2015, 30, 1098-1109.	1.2	16
49	Evaluation of indentation fracture toughness for brittle materials based on the cohesive zone finite element method. Engineering Fracture Mechanics, 2015, 134, 304-316.	2.0	28
50	Evaluation of the fracture toughness of brittle hardening materials by Vickers indentation. Engineering Fracture Mechanics, 2015, 148, 134-144.	2.0	11
51	Evaluation of combined hardening coefficients of zircaloy-4 sheets by simple shear test. Materials & Design, 2015, 65, 995-1000.	5.1	9
52	Property Evaluation Method Using Spherical Indentation for High-Yield Strength Materials. Transactions of the Korean Society of Mechanical Engineers, A, 2015, 39, 1079-1089.	0.1	0
53	On acquiring true stressâ€“strain curves for sheet specimens using tensile test and FE analysis based on a local necking criterion. Journal of Materials Research, 2014, 29, 695-707.	1.2	25
54	Correction of indentation loadâ€“depth curve based on elastic deformation of sharp indenter. Mechanics of Materials, 2014, 69, 146-158.	1.7	11

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55	A study on the shearing process and the burr formation of zircaloy-4 sheet by using GTN model. International Journal of Precision Engineering and Manufacturing, 2014, 15, 2167-2175.	1.1	6
56	Characteristics of indentation cracking using cohesive zone finite element techniques for pyramidal indenters. International Journal of Solids and Structures, 2014, 51, 4327-4335.	1.3	19
57	Enhancement of dimple formability in sheet metals by 2-step forming. Materials & Design, 2014, 54, 121-129.	5.1	6
58	Effects of Rayleigh damping, friction and rate-dependency on 3D residual stress simulation of angled shot peening. Materials & Design, 2013, 46, 26-37.	5.1	46
59	An evaluation technique for forming limit strains of zircaloy-4 and zirlo sheets based on FEA solutions. , 2013, , .		0
60	Design study of the geometry of the blanking tool to predict the burr formation of Zircaloy-4 sheet. , 2013, , .		0
61	Determination of Flow Stress of Zircaloy-4 Under High Strain Rate Using Slot Milling Test. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 67-75.	0.1	4
62	A Numerical Approach to Spherical Indentation Techniques for Creep Property Evaluation. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1229-1237.	0.1	1
63	Analysis of Cracking Characteristics with Indenter Geometry Using Cohesive Zone Model. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1453-1463.	0.1	2
64	Enhancement of Dimple Formability in Sheet Metals by 2-Step Forming. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 841-849.	0.1	0
65	Development of Test Method for Simple Shear and Prediction of Hardening Behavior Considering the Bauschinger Effect. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1239-1249.	0.1	1
66	Spherical Indentation Techniques for Creep Property Evaluation Considering Transient Creep. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1339-1347.	0.1	0
67	Evaluation of Indentation Fracture Toughens in Brittle Materials Based on FEA Solutions. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1503-1512.	0.1	0
68	A spherical indentation technique for property evaluation of hyperelastic rubber. Journal of Materials Research, 2012, 27, 2677-2690.	1.2	7
69	Ductile fracture model in the shearing process of zircaloy sheet for nuclear fuel spacer grids. Metals and Materials International, 2012, 18, 303-316.	1.8	7
70	A numerical approach to indentation technique to evaluate material properties of film-on-substrate systems. International Journal of Solids and Structures, 2012, 49, 1033-1043.	1.3	8
71	A 3D FE model with plastic shot for evaluation of equi-biaxial peening residual stress due to multi-impacts. Surface and Coatings Technology, 2012, 206, 3125-3136.	2.2	40
72	A 3D FE model for evaluation of peening residual stress under angled multi-shot impacts. Surface and Coatings Technology, 2012, 206, 3981-3988.	2.2	37

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73	Laser pulsed welding in thin sheets of Zircaloy-4. Journal of Materials Processing Technology, 2012, 212, 1116-1122.	3.1	45
74	Forming Limit Diagrams of Zircaloy-4 and Zirlo Sheets for Stamping Process of Spacer Grids of Nuclear Fuel Rod. , 2011, , .		3
75	A dual conical indentation technique based on FEA solutions for property evaluation. Mechanics of Materials, 2011, 43, 313-331.	1.7	38
76	Crack-tip opening angle-based numerical implementation for fully plastic crack growth analyses. Journal of Mechanical Science and Technology, 2011, 25, 1201-1206.	0.7	3
77	Crack-tip field characterization of crack-tip opening angle-based crack growth â€" plane strain single-edge cracked specimen subject to pure extension. Journal of Mechanical Science and Technology, 2011, 25, 1207-1213.	0.7	5
78	A simple but effective FE model with plastic shot for evaluation of peening residual stress and its experimental validation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5945-5954.	2.6	38
79	An area-average approach to peening residual stress under multi-impacts using a three-dimensional symmetry-cell finite element model with plastic shots. Materials & Design, 2010, 31, 50-59.	5.1	97
80	Buckling sensitivity of a connecting rod to the shank sectional area reduction. Materials & Design, 2010, 31, 2796-2803.	5.1	23
81	A study on robust indentation techniques to evaluate elasticâ€"plastic properties of metals. International Journal of Solids and Structures, 2010, 47, 647-664.	1.3	117
82	Numerical approaches and experimental verification of the conical indentation techniques for residual stress evaluation. Journal of Materials Research, 2010, 25, 2212-2223.	1.2	16
83	A numerical approach to evaluation of elastic modulus using conical indenter with finite tip radius. Journal of Materials Research, 2008, 23, 2528-2537.	1.2	28
84	Interfacial crack-tip constraints and J-integral for bi-materials with plastic hardening mismatch. International Journal of Fracture, 2007, 143, 231-243.	1.1	12
85	A numerical approach to spherical indentation techniques for material property evaluation. Journal of the Mechanics and Physics of Solids, 2005, 53, 2037-2069.	2.3	211
86	Overload analysis and fatigue life prediction of spot-welded specimens using an effective J-integral. Mechanics of Materials, 2005, 37, 19-32.	1.7	18
87	Overload failure curve and fatigue behavior of spot-welded specimens. Engineering Fracture Mechanics, 2005, 72, 1203-1221.	2.0	39
88	Fatigue life prediction of multi-spot-welded panel structures using an equivalent stress intensity factor. International Journal of Fatigue, 2004, 26, 403-412.	2.8	24
89	Design enhancements for stress relaxation in automotive multi-shell-structures. International Journal of Solids and Structures, 2003, 40, 5319-5334.	1.3	9
90	The 3D surface crack-front constraints in bimaterial joints. Nuclear Engineering and Design, 2003, 226, 107-118.	0.8	4

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91	An Indentation Theory Based on FEA Solutions for Material Property Evaluation. , 2002, , 121.		1
92	Estimation of crack driving forces on strength-mismatched bimaterial interfaces. Nuclear Engineering and Design, 2002, 212, 155-164.	0.8	7
93	J and CTOD estimation for homogeneous and Bi-material fracture toughness testing specimens. Journal of Mechanical Science and Technology, 2001, 15, 1079-1089.	0.4	4
94	Interfacial crack-tip constraints and J-integrals in plastically mismatched bi-materials. Engineering Fracture Mechanics, 2001, 68, 1013-1031.	2.0	33
95	Overload Analysis and J_e Based Fatigue Life Prediction of Spot-Welded Auto Seat Belt Anchors(Fatigue 2). Proceedings of the Asian Pacific Conference on Fracture and Strength and International Conference on Advanced Technology in Experimental Mechanics, 2001, 1.01.203, 410-415.	0.0	0
96	Decomposition of interfacial crack driving forces in dissimilar joints. Journal of Mechanical Science and Technology, 2000, 14, 30-38.	0.4	2
97	Line-spring finite element for fully plastic crack growthâ€”I. Formulation and one-dimensional results. International Journal of Solids and Structures, 1998, 35, 5115-5138.	1.3	7
98	Line-spring finite element for fully plastic crack growthâ€”II. Surface-cracked plates and pipes. International Journal of Solids and Structures, 1998, 35, 5139-5158.	1.3	11
99	Effect of strength mismatch on fully plastic fields in dissimilar joints under combined loading. Journal of Mechanical Science and Technology, 1998, 12, 553-564.	0.4	3
100	A modified effective crack-length formulation in elastic-plastic fracture mechanics. Mechanics of Materials, 1995, 20, 273-289.	1.7	13
101	Enhanced elastic-plastic line-spring finite element. International Journal of Solids and Structures, 1995, 32, 2393-2418.	1.3	27
102	Fully plastic analyses of plane strain single-edge-cracked specimens subject to combined tension and bending. International Journal of Fracture, 1993, 63, 329-349.	1.1	39